

Title (en)
A MEDIUM VOLTAGE CONTACTOR

Title (de)
MITTELSPANNUNGSSCHÜTZ

Title (fr)
CONTACTEUR MOYENNE TENSION

Publication
EP 3258473 B1 20190807 (EN)

Application
EP 16174129 A 20160613

Priority
EP 16174129 A 20160613

Abstract (en)
[origin: EP3258473A1] A contactor (1) comprising: - one or more electric poles (3); - for each electric pole, a fixed contact (31) and a corresponding movable contact (32), the one or more movable contacts (32) of said contactor being reversibly movable, along corresponding displacement axes (33) mutually parallel and lying on a common displacement plane (34), between a first position (A), at which said movable contacts are decoupled from the corresponding fixed contacts, and a second position (B), at which said movable contacts are coupled with the corresponding fixed contacts; - a movable armature (7) reversibly movable, along a corresponding displacement direction parallel to the displacement axes (33) of said movable contacts, between a third position (C) and a fourth position (D); - for each electric pole, a first plunger (8) coupled with said movable armature (7) and with a corresponding movable contact (32), each first plunger extending along a corresponding main longitudinal axis parallel or coinciding with the displacement axis (33) of a corresponding movable contact (32); - an electromagnetic actuator (4) comprising a magnetic yoke (41, 42) having a fixed yoke member (41) and a movable yoke member (42), said movable yoke member being reversibly movable, along a corresponding displacement direction parallel to the displacement axes (33) of said movable contacts (32), between a fifth position (E), at which it is decoupled from said fixed yoke member, and a sixth position (F), at which it is coupled with said fixed yoke member, said electromagnetic actuator further comprising a coil (44) wound around said fixed yoke member (41) and adapted to be fed by a coil current (IC) to make said fixed yoke member (41) to magnetically interact with said movable yoke member (42) and generate a force to move said movable yoke member from said fifth position (E) to said sixth position (F) or maintain said movable yoke member in said sixth position (F); - one or more opening springs (6) coupled with said fixed yoke member (41) and said movable yoke member (42), said opening springs being adapted to provide a force to move said movable yoke member from said sixth position (F) to said fifth position (E); - one or more second plungers (5) coupled with said movable yoke member (42) and said movable armature (7), each second plunger extending along a corresponding main longitudinal axis parallel with the displacement axes (33) of said movable contacts (32).

IPC 8 full level
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CPC (source: CN EP KR US)
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Cited by
US10998156B2; US11640887B2; EP3444830A1; WO2019034349A1; EP3444833A1; WO2019034350A1

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